

## MANUFACTURER INNOVATES TO GROW BUSINESS

**ABOUT ROLLOFFS U.S.A.** Based in the rural town of Durant, Oklahoma, Roll Offs USA produces hydraulic fracturing tanks for the oil and gas industry. The containers—commonly referred to as frac tanks—are used for fluid and sludge storage. Farmers often use the tanks to store materials like fertilizer and weed killer, airports use them to store deicer and other chemicals. The 25-year-old company also manufactures units and components for the waste equipment industry. With more than 100 employees, Roll Offs plays an important role in the local economy.

**THE CHALLENGE.** Over the past 25 years, Danny Hankey, President of Roll Offs USA, built a vibrant company producing components for the waste equipment industry. A small portion of the business was dedicated to manufacturing frac tanks. But when demand for frac tanks surged and Hankey received an order for several hundred, he realized the company had to expand its capacity in that area.

For help and advice, Hankey turned to Kay Watson, a manufacturing extension agent with the Oklahoma Manufacturing Alliance, part of the MEP National Network™. Watson had worked with Roll Offs on several projects and enjoyed a solid relationship with Hankey and other company leaders. While increasing production of frac tanks was Hankey's primary goal, he knew ergonomic and safety issues were a vital component of work on the 45-foot-long, 23,000-pound units. Welders were laying two hundred feet of bead over their heads and doing it while standing on ten-foot ladders. A major engineering rework was needed before fabrication could be sped up.

**MEP CENTER'S ROLE.** Watson called on the Manufacturing Alliance's applications engineers. While Hankey had the idea of a rotator that would turn the giant tanks and make welding more convenient, he had no idea how to engineer a unit that would work on such a massive scale. Engineers concluded that simply upscaling current designs would not work because of the weight and size involved. No models were available to help determine the all-important center of gravity for the tanks. And the center of gravity often shifts depending on the tank's roof.

Despite these challenges, Watson and her team created a solution in just a few months. The final design consists of two masts that extend and retract to engage the front and back of the unit. The tank is then lifted via hydraulics and fully rotated by a single operator. Welders no longer have to stand on ladders and scaffolding inside and outside of the tank; the seams come down to them. The tank is now essentially upside down and at waist height, which allows welders to work in a safer, more comfortable position.

With the new production system, Roll Offs was able to complete the large frac tank order in a timely manner. It is now in the process of fulfilling other significant projects.

**"The Oklahoma Manufacturing Alliance has literally helped us transform the way we operate. It not only means a lot to our company, it has made a tremendous economic impact on our entire community."**

-Danny Hankey, President

## RESULTS



**\$2,500,000** in new annual sales



**10 jobs** created



**\$50,000** in annual cost savings



**Tripled** production capacity

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